IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Dinger et al.	**Conf. No.:**	7718
Serial No.:	10/721,630	**Art Unit:**	3715
Filing Date:	11/25/2003	**Examiner:**	Gishnock, Nikolai
		Docket No.:	LOT920030021US1 (IBML-0028)

Title: PERFORMING BRANCHED ROLLUP FOR SHARED LEARNING COMPETENCIES IN A LEARNING ENVIRONMENT

Mail Stop Appeal Brief- Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF OF APPELLANTS

This is an appeal from the Final Rejection dated September 24, 2009 rejecting claims 1-3 and 5. This Brief is accompanied by the requisite fee set forth in 37 C.F.R. 1.17(c).

REAL PARTY IN INTEREST

International Business Machines Corporation is the real party in interest.

RELATED APPEALS AND INTERFERENCES

Appellant is not currently aware of any prior or pending appeals, interferences or judicial proceedings which may directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

As filed, this case included claims 1-20. Claims 4, and 6-20 were canceled during prosecution. Claims 1-3 and 5 remain pending, and claims 1-3 and 5 stand rejected and form the basis of this appeal.

STATUS OF AMENDMENTS

No amendment to the claims has been entered subsequent to the Final Office Action dated September 24, 2009.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention provides a method for performing branched rollup for shared learning competencies in a learning environment. Below is a concise explanation of the subjected matter defined in the independent claim which is involved in this Appeal. In addition, the summary points out elements in the figures that correspond to claim features as well as sections in the specification that discuss the features.

Claim 1 claims a computer-implemented method for performing branched rollup for shared learning competencies in a learning environment, comprising: providing a hierarchical tree corresponding to the learning environment (*see e.g.*, para. [0020], elements 10, 20 in FIG. 1, elements 20, 22 in FIG. 2, element S1 in FIG. 4A), wherein the hierarchical tree includes a parent node (*see e.g.*, element 12 in FIGS. 1, 2), a first branch having a first child node and a first grandchild node (*see e.g.*, elements 14A, 16A, 18A-B in FIGS. 1, 2), and a second branch having a second child node and a second grandchild node (*see e.g.*, elements 14B, 16B, 18C-D in FIGS. 1, 2); providing a learning competency in the learning environment that is shared by the first grandchild node and the second grandchild node (*see e.g.*, para. [0030], element 20 in FIG. 2); performing an information rollup, using at least one computer device, of the first child node upon a change in state of the learning competency (*see e.g.*, para. [0027]), and performing an information rollup, using the least one computer device, of the second child node after performing the information rollup of the first child node (*see e.g.*, para. [0027]); wherein the information rollups include communicating a change in state of the learning competency to a node from which at least one of the first and second grandchild node depends (*see e.g.*, paras. [0026] - [0029]); generating a control block, using the least one computer device, for each of the first child node, the second child node and the parent node prior to the first performing step (*see e.g.*, para. [0027], element 42 in FIG. 3, element S4 in FIG. 4A), wherein the control block for the parent node indicates that the information rollup of the first child node and the information rollup of second child node must both be performed prior to performing the information rollup of the parent node (*see e.g.*, para. [0027]); performing an information rollup, using the least one computer device, of the parent node only after performing the information rollup of the first child node and the information rollup of the second child node, eliminating repeated rollups of the parent node (*see e.g.*, paras. [0027], [0030]), and writing the hierarchical tree to a computer readable medium of the at least one computing device after performing the information rollup of the parent node (*see e.g.*, para. [0025], element 36 in FIG. 3).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-3 and 5 are unpatentable under 35 USC 103(a) over Cappellucci et al. (US 2003/0039949 A1), in view of Advanced Distributed Learning. ADL SCORM Version 1.3 Application Profile, Working Draft 0.9 [2002-11-27].

ARGUMENT

In the Final Office Action dated September 24, 2009, claims 1-3 and 5 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Cappellucci et al. (US 2003/0039949 A1), hereafter known as "Cappellucci," in view of Advanced Distributed Learning. ADL SCORM Version 1.3 Application Profile, Working Draft 0.9 [2002-11-27], hereafter known as "Advanced Distributed Learning" or "ADL."

Appellants respectfully disagree that the cited references, either singly or in combination, teach or suggest each and every claimed limitation of the claimed invention. In fact, the claimed invention differs from the cited art is several important aspects.

For example, with respect to independent claim 1, the cited references fail to teach or suggest "performing an information rollup, using the least one computer device, of the parent node only after performing the information rollup of the first child node and the information rollup of the second child node, eliminating repeated rollups of the parent node." In contrast to the claimed invention, neither Cappellucci nor ADL teaches performing an information rollup that eliminates repeated rollups of the parent node. The Office argues that the linking of information in a table in Cappellucci, i.e., the correlation query, is equivalent to the information rollup of the claimed invention. (Final Office Action, p. 3). The Office also argues that Cappellucci searches for child nodes then sibling nodes and if no sibling MLOs are found, it can search for parent MLOs and therefore, repeated rollups of a parent node are eliminated, as required by the claimed invention. (Final Office Action, p. 3-4). Applicants respectfully disagree with this argument. First, the correlation query of Cappellucci is not equivalent to the information rollups of the claimed invention. Secondly, Cappellucci does not teach a method wherein a parent node is <u>only</u> rolled up after first and second child nodes are rolled up.

Interpreting Cappellucci for purposes of this response only, Applicants submit that Cappellucci teaches a method for correlating information within a system that derives information from a plurality of disparate informational resources. Para. [0021]. Cappellucci's correlation system simply allows a user to search to find information objects and elements that are correlated against a particular information object or element. As admitted by the Office, Cappellucci's system performs a "correlation query, a process to find those information objects and elements that are correlated against a particular information object or element." Final Office Action, p.3. In contrast, the claimed invention claims the performance of an information rollup; *i.e.*, a communication of a change in state of a learning competency to the appropriate node. Cappellucci's correlation of data simply establishes a link or relationship between the information object or element and the MLO. (*See* Abstract). Cappeullucci does not communicate changes up a hierarchical tree as claimed in the claimed invention. Accordingly, Cappellucci's search for correlated data is not equivalent to performing an information rollup.

Furthermore, Cappellucci does not disclose performing an information rollup of the parent node only after performing the information rollup of the child nodes. Cappellucci's search for correlated data does not ensure that child or sibling nodes are rolled up before a parent node. In contrast, the claimed invention will only perform an information rollup of the parent after the child nodes have already been rolled up. In the Final Office Action, the Office also cites to the ADL reference and states that it discloses eliminating repeated rollups of the parent nodes in Example 5.1.5.6a because the example shows that all child nodes must be considered "satisfied" in order to consider the parent node "satisfied." (Final Office Action, pp. 5, 8). However, this simply ensures that a child node is not missed or skipped, it does not ensure that every child node is rolled up <u>before</u> a parent node is rolled up.

Moreover, neither of the cited references teaches or suggests "generating a control block, using the least one computer device, for each of the first child node, the second child node and the parent node prior to the first performing step, wherein the control block for the parent node indicates that the information rollup of the first child node and the information rollup of second child node must both be performed prior to performing the information rollup of the parent node" as in claim 1. The claimed invention generates a control block for each of the child and parent nodes which ensures that the rollup of the child nodes must be performed before the information rollup of the parent node. In the Final Office Action, the Office equates this generation of a control block with Cappellucci's population of a data base with meta data which is performed when information resources are input into the system. Final Office Action, pp. 3-4, citing Cappellucci paragraphs [0076]-[0077]. The Office also states that the claim term "generating a control block" is "understood to be merely technospeak for creating some computer code, which is also clearly performed by populating the database of Cappellucci." Final Office Action, p. 8. However, this population of meta data is not equivalent to the control blocks of the claimed invention, which are generated for each of the first child node, the second child node, and the parent node, prior to the first performing step. As the cited paragraphs of Cappellucci indicate, the meta-data in Cappellucci is used to correlate the information objects and elements of the information resources to the master learning objectives (MLOs). This system allows a user to search for information, for example state standards, correlated to a lesson plan. The system first searches for correlated data for the child MLOs, then the sibling MLOs and then the parent MLOs. But this system does not provide a logic system where child nodes are rolled up before a parent node to avoid repeated rollups.

With regard to the Office's other arguments regarding dependent claims, Appellants herein incorporate the arguments presented above with respect to independent claims listed above. In addition, Appellants submit that all dependant claims are allowable based on their own distinct features. However, for brevity, Appellants will forego addressing each of these rejections individually, but reserve the right to do so should it become necessary. Accordingly, Appellants respectfully submit that claims 1-3 and 5 are allowable.

Respectfully submitted,

/Meghan Q. Toner/

Meghan Q. Toner, Reg. No. 52,142
Hoffman Warnick LLC
75 State Street, 14th Floor
Albany, NY 12207
(518) 449-0044 - Telephone
(518) 449-0047 – Facsimile

Dated: February 16, 2010

CLAIMS APPENDIX

Claim Listing:

1. A computer-implemented method for performing branched rollup for shared learning competencies in a learning environment, comprising:

providing a hierarchical tree corresponding to the learning environment, wherein the hierarchical tree includes a parent node, a first branch having a first child node and a first grandchild node, and a second branch having a second child node and a second grandchild node;

providing a learning competency in the learning environment that is shared by the first grandchild node and the second grandchild node;

performing an information rollup, using at least one computer device, of the first child node upon a change in state of the learning competency, and performing an information rollup, using the least one computer device, of the second child node after performing the information rollup of the first child node; wherein the information rollups include communicating a change in state of the learning competency to a node from which at least one of the first and second grandchild node depends;

generating a control block, using the least one computer device, for each of the first child node, the second child node and the parent node prior to the first performing step, wherein the control block for the parent node indicates that the information rollup of the first child node and the information rollup of second child node must both be performed prior to performing the information rollup of the parent node;

performing an information rollup, using the least one computer device, of the parent node only after performing the information rollup of the first child node and the information rollup of the second child node, eliminating repeated rollups of the parent node, and writing the hierarchical tree to a computer readable medium of the at least one computing device after performing the information rollup of the parent node.

2. The computer-implemented method of claim 1, further comprising:

analyzing the hierarchical tree to identify the second grandchild node as sharing the learning competency with the second grandchild node; and

adding the second grandchild node to a list of nodes prior to performing the information rollup of the first child node.

3. The computer-implemented method of claim 2, further comprising consulting the list of nodes prior to performing the information rollup of the second child node.

5. The method of claim 1, further comprising:

processing the control block for the first child node prior to performing the information rollup of the first child node;

processing the control block for the second child node prior to performing the information rollup of the second child node; and

processing the control block for the parent node prior to performing the information rollup of the parent node.

EVIDENCE APPENDIX

No evidence has been entered and relied upon in the appeal.

RELATED PROCEEDINGS APPENDIX

No decisions rendered by a court or the Board in any proceeding are identified in the related appeals and interferences section.